



Missouri Department of Natural Resources

## Total Maximum Daily Load Information Sheet

### For Streams Where the Pollutant is Unknown

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#### Water Body Segment at a Glance:

**Location:** Ten water bodies statewide

**Pollutant:** Unknown

**Source:** Not stated

**TMDL Priority Ranking:** Medium

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#### Description of the Problem

##### Beneficial uses of these waterbodies

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life
- Protection of Human Health associated with Fish Consumption

##### Use that is impaired

- Protection of Warm Water Aquatic Life

##### Standards that apply

- All waterbodies in Missouri are protected by the general criteria (standards) contained in Missouri's Water Quality Standards (WQS), 10 CSR20-7.031(3). These criteria are also called narrative criteria, since they do not contain specific numerical limits. Some points that might apply are (3)(A), (D) and (G):
  - Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses.
  - Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life.
  - Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community.

#### Background Information

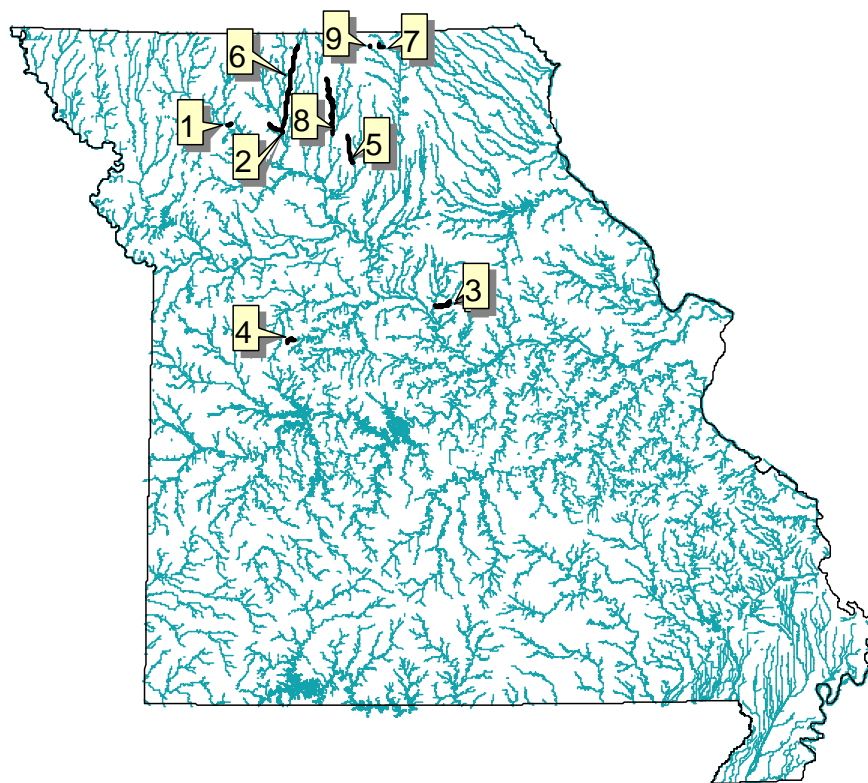
The U.S. Environmental Protection Agency (EPA) placed ten streams<sup>1</sup> on the 2002 303(d) list for unknown pollutants, but did not indicate sources or lengths for the impairment. In the absence of any clarification from EPA, the department has listed the full length of the segments. EPA based these listings on the department's revised "Monitoring Report on 26 Waters" and Visual/Benthic Low Flow Surveys. Specific reasons cited included the presence of dense filamentous algae and/or duckweed;

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<sup>1</sup> Note: For more information of Hinkson Creek, see the Hinkson Creek TMDL Information Sheet. It is the only waterbody of these "unknowns" that has a separate information sheet written for it.

“some rocks darkened by manganese” (may indicate a daily oxygen sag); the presence of pollution tolerant aquatic species; anoxic (lacking oxygen) sediments; overall reduced biodiversity; and high specific conductance (indicating excessive dissolved minerals). The problem with these listings is that there are no numeric data to support them and a TMDL is a numeric calculation. The department is working with EPA on how to deal with these water bodies.

### Missouri Streams Listed for an Unknown Pollutant due to an Unknown Source



Number	Waterbody	County (Lower Section)	Miles Listed
1	Hickory Creek	Daviess	13
2	Hickory Creek and Tributary (two water bodies)	Grundy	1
3	Hinkson Creek (two segments)	Boone	11
4	Long Branch	Pettis	3.5
5	Long Branch Creek	Linn	13
6	Muddy Creek	Grundy	36.5
7	Sandy Creek	Putnam	3
8	West Fork Locust Creek (two segments)	Sullivan and Linn	34
9	Willow Branch	Putnam	Unclassified

**For more information call or write:**

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